HARRIS, WILTSHIRE & GRANNIS LLP

1200 EIGHTEENTH STREET, NW
WASHINGTON, DC 20036

TEL 202.730.1300 FAX 202.730.1301
WWW.HARRISWILTSHIRE.COM

ATTORNEYS AT LAW

May 21, 2007

Ex Parte

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: TV White Spaces Proceeding, ET Docket Nos. 04-186, 02-380

Dear Ms. Dortch:

On May 18, 2007, on behalf of the White Spaces Coalition,[1] Kiran Challapali and Gene Turkenich of Philips along with the undersigned submitted a prototype spectrum sensing device to the FCC Laboratory for testing. We also met with Rashmi Doshi, Steven Jones, and Steven Martin of the Office of Engineering and Technology to provide instruction on the operation of the device. Finally, we provided OET staff with the prototype presentation attached hereto.

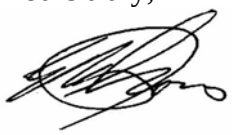
Like the personal/portable prototype devices previously submitted by Microsoft on the Coalition's behalf, the Philips prototype is designed to demonstrate that operating parameters set forth by the Coalition in the above-referenced dockets will provide incumbent licensees in the television bands with the interference protection to which they are entitled. Specifically, the Philips prototype successfully locates analog and digital television signals as well as wireless microphone signals using a detection threshold of -114 dBm.

As the Commission is aware, Philips is one of the largest manufacturers of plasma and LCD digital televisions in the United States and a leader in television research and development. Philips' own testing indicates that the operating parameters proposed by the Coalition are more than sufficient to protect incumbent broadcast and other licensees, and Philips anticipates confirmation of these test results by OET.

[1] The White Space Coalition's members include Dell, Inc., EarthLink, Inc., Google, Inc., Hewlett-Packard Co., Intel Corp., Microsoft Corp., and Philips Electronics North America Corp.

If you require any additional information please contact the undersigned at (202) 730-1305.

Yours truly,



Edmond J. Thomas
Senior Technology Policy Advisor

cc: Julius Knapp
meeting participants

PHILIPS

Philips sensing prototype

Presented by: Kiran Challapali
Philips Research North America
Spectrum Agile/Cognitive Radios
May 18, 2007

Philips Sensor Team

- Vasanth Gaddam
- Monisha Ghosh
- Gene Turkenich
- Kiran Challapali (Project Leader)

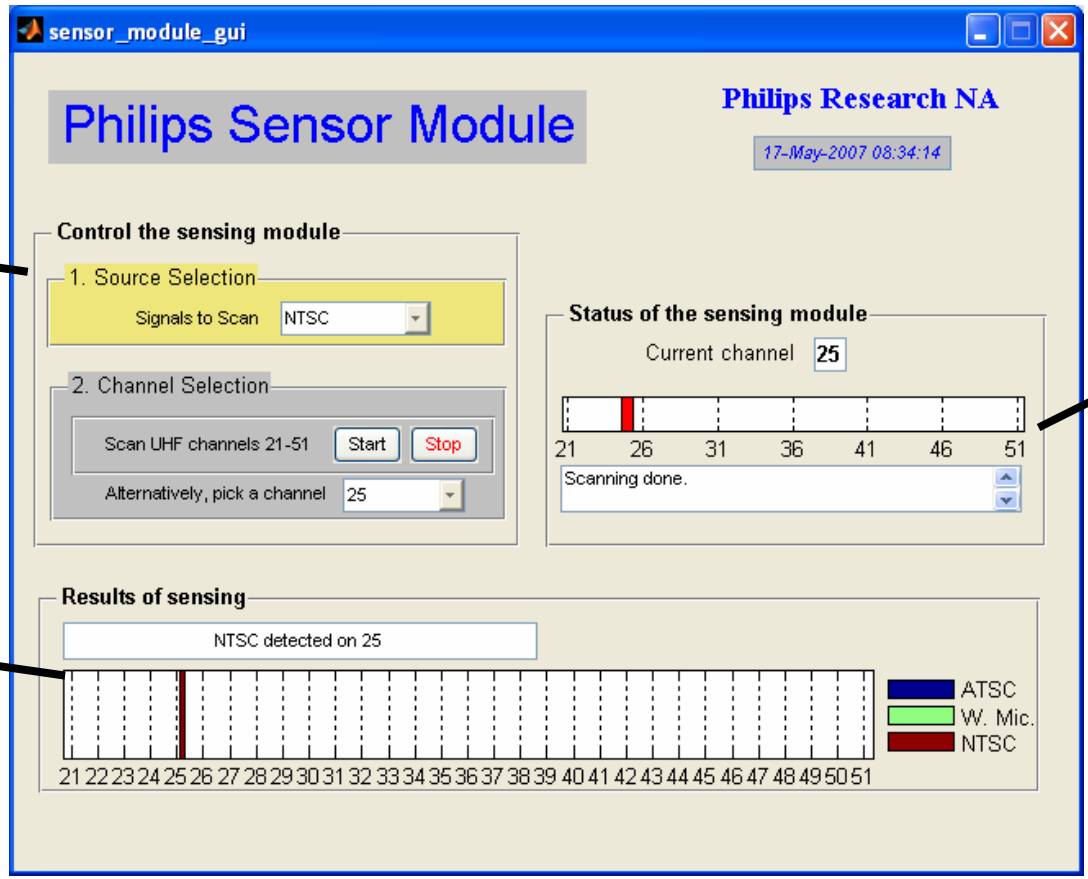
The Philips sensing prototype

- A prototype sensing device that can
  - scan UHF channels (21-51),
  - detect ATSC, NTSC, or wireless microphones signals, if present,
  - down to -114dBm signal strength within a 6 MHz TV channel.
  - Philips has conducted its own testing to verify the above.

- The prototype consists of
  - a Philips TV tuner
    - for tuning to a specified TV channel and translating to IF frequency,
  - a digital processing board
    - for A/D and processing, and,
  - a computer
    - for user-interface, control and processing.

Operating the prototype

The user interface has three regions:



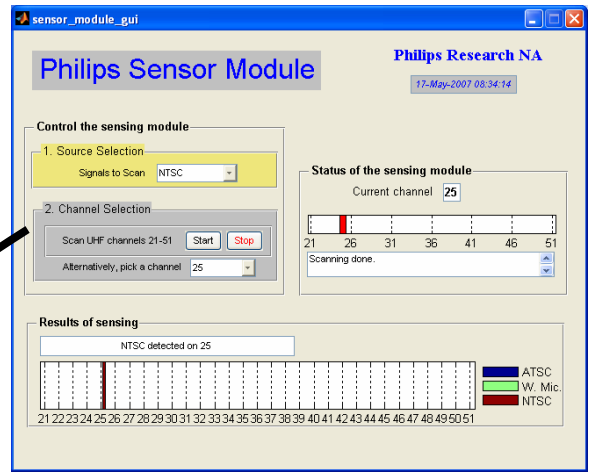
Control the sensing module

Status of the sensing module

Results from the sensing module

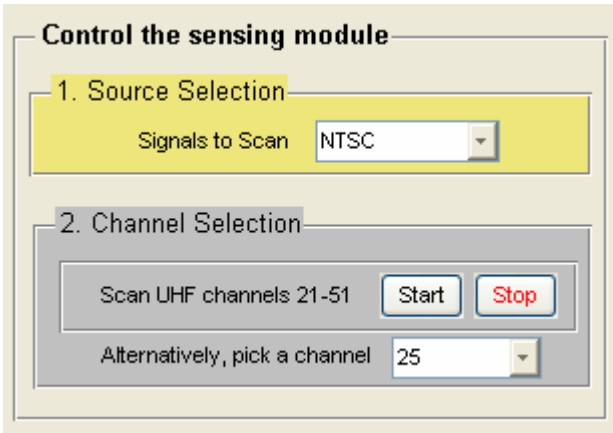
UI: Control the sensing module

- Both source and channel must be selected to detect the presence of an incumbent

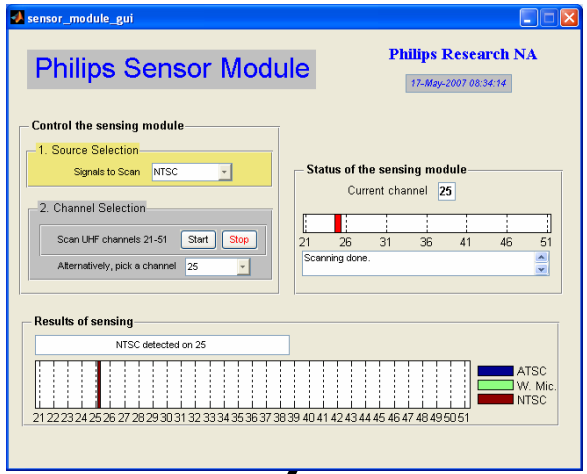


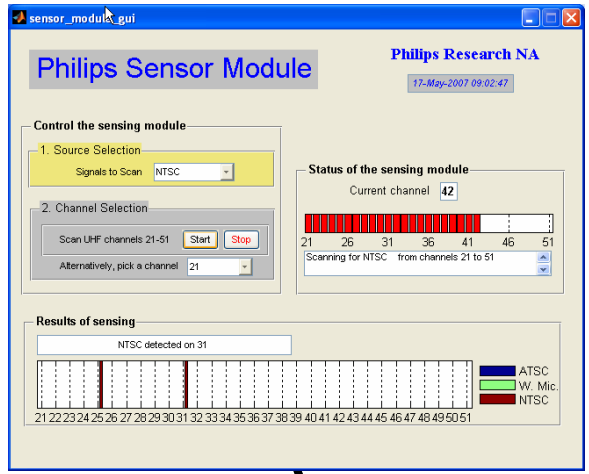
1. Source selection:
   - From the pull down menu, select ATSC, NTSC, wireless microphone or All.

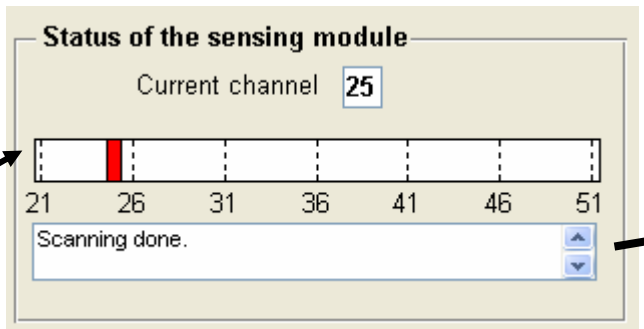
2. Channel selection: There are two options:
   - Scan all channels with start/stop pushdown buttons
   - Alternatively, pick a channel to scan from pull down menu



UI: Status of the sensing module

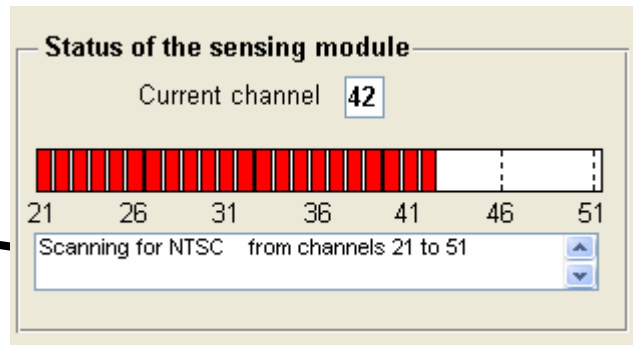






Shows tuner channel

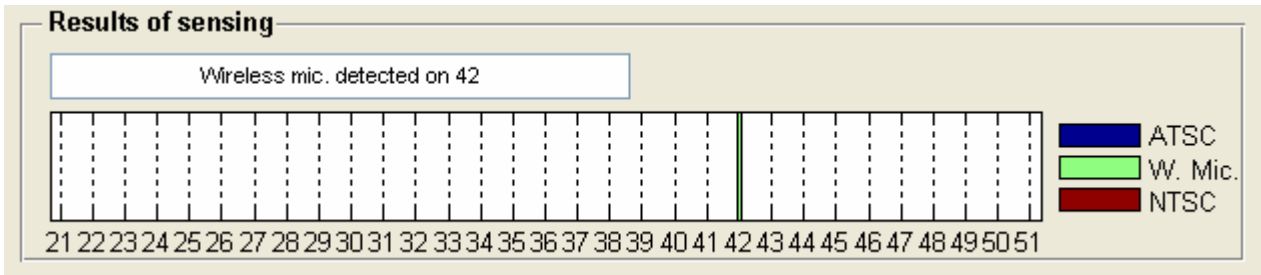
- Indicates the sensing operation being performed
- Also indicates when sensing is completed/done.

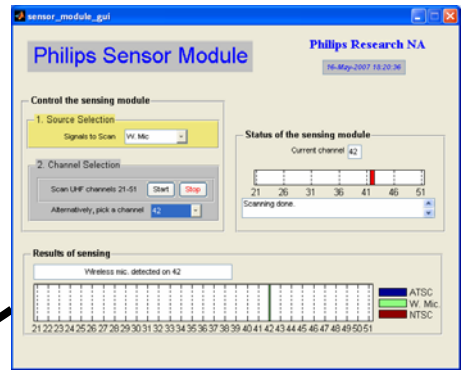


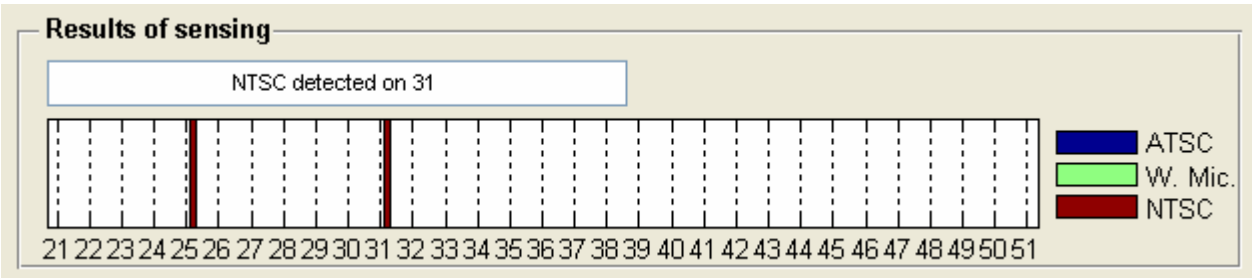
Scanning mode

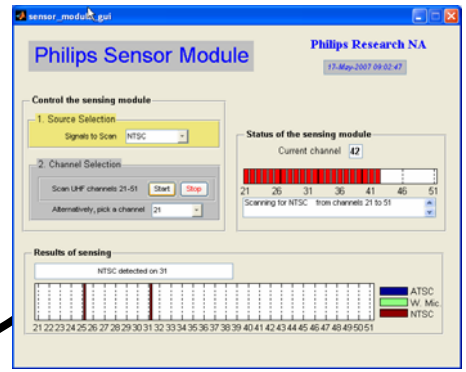
UI: Results from the sensing module

- Display results: textually and graphically.









Don’t hesitate to call us.

Contact information:
Kiran Challapali
kiran.challapali@philips.com
(914) 945-6356 (work)

Gene Turkenich
gene.turkenich@philips.com
(914) 945-6370 (work)


PHILIPS